

14.4 Taking hair and blood samples for DNA tests

14.4.1 Hair samples

To obtain DNA from hair samples, the hair must have roots - the white, bulging part at the end of the hair that is pulled out. The tail of the animal is the easiest and most reliable place for plucking hair with roots. Thinner hair from other parts of the body often break off above the skin and is then unsuitable for DNA testing.

The procedure:

(Beforehand, make sure the tail switch is fairly clean and completely dry without any wet or dry excrement).

- Once the animal is restrained and the tail can be handled freely, wrap a bunch of hair (approximately 30 to 40) about one third from the end of the tail securely around your index finger, or use a pair of tongs.
- Grasp the bunch of hair firmly with the thumb and quickly pluck it out.
- The plucked hair can then be knotted or secured with masking tape and placed directly into a clean paper envelope (or clean, dry plastic bag) marked with the breeder's name, the animal's name, computer/registration number and any other relevant information.
- Complete the DNA submission form in full and put it into an envelope along with the hair sample, ready to be dispatched.
- It is essential to take every animal's hair sample separately and seal it in the marked envelope before taking the next sample.

14.4.2 Blood samples

- Blood samples for determining DNA profiles must be taken in the appropriate tubes with a purple stopper, also known as full blood count or EDTA tubes.
- About 1 ml blood is required.
- Shake the tubes very well once the sample has been taken and clearly mark the tubes.
- There are no special dispatch requirements.

14.4.3 Samples for the 1/29 translocation

- Chromosome studies are required for the identification of the 1/29 translocation.
- A blood sample in a green stopper (Lithium Heparin) tube is required for cultivating a culture.
- The blood sample for chromosome culture must not be frozen or transported in very warm conditions.
- It is essential to get a sample for chromosome culture to the laboratory as soon as possible.

14.4.4 Transporting samples

- Hair samples can be mailed to the laboratory by registered post.
- Blood samples for DNA profile analysis can also be mailed, but must be carefully packed to prevent the tubes from breaking.
- To prevent any problems, contact the relevant analysis laboratory so that transport can be arranged and monitored.

14.5 Contact details

DNA Laboratory	Unistel Laboratories	Equine Research Centre
ARC-LBD	Suite 13	Veterinary Genetic Laboratory
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